

Prince Edward Island

Papillomatous digital dermatitis in a Canadian dairy herd

Lameness, decreased feed intake, and decreased production were reported in milking cows in a dairy herd in Newfoundland. The cows were housed in free stalls on concrete and had no access to pasture. Routine hoof care included professional hoof trimming every 6 mo and use of a formalin footbath every 14 d. The free stall area was cleaned twice daily.

The lameness was associated with exophytic growths that almost exclusively involved the central portion of the bulbs of the heel, sometimes extending medially to the axial groove. The lesions were up to 3–4 cm in diameter, appeared greyish with moist red ulcerated areas, and often had dark, thick, hair-like surface projections. They were extremely painful and bled readily when disturbed. Progression of the lesions resulted in necrosis with undermining of the horn in the bulb region. **These foot lesions were present in approximately 25% of the cattle; with few exceptions, mature cattle were affected.** An excisional biopsy of a heel lesion was submitted for histological examination.

Microscopically, there was marked parakeratotic hyperkeratosis with long, thick, hair-like cornified surface projections and papillate epidermal hyperplasia, with patchy areas of erosion, ulceration, and neutrophil infiltration. A fine, basophilic, fibrillar material, which on silver staining represented a tangled mass of predominately spirochetes, was intermixed with outer layers of epidermis and cell debris. The underlying dermal papillae had a moderate infiltration of neutrophils, eosinophils, and fewer lymphocytes.

This case appears indistinguishable from those recently described in the United States and Europe (1,2), which have variously been called papillomatous digital dermatitis, interdigital papillomatosis, digital dermatitis, hairy foot warts, heel warts, foot warts, strawberry foot rot, raspberry heel, or Mortellaro disease. There is evidence that the spirochetes within the lesions play an important role in the pathogenesis of the disease. Bovine papillomatous digital dermatitis appears similar to the human tropical disease yaws, a skin disease of the legs and feet caused by the spirochete *Treponema pertenue* (*Treponema pallidum* subsp. *pertenue*).

Since this first case of papillomatous digital dermatitis in September 1993, we have had cases in our laboratory from several similarly affected herds in the Atlantic provinces.

References

1. Blowey RW, Sharp MW. Digital dermatitis in dairy cattle. *Vet Rec* 1988; 122: 506–508.
2. Read DH, Walder RL, Castro AE, Sundburg JP, Thurmond MD. An invasive spirochaete associated with interdigital papillomatosis of dairy cattle. *Vet Rec* 1992; 130: 59–60.

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Ontario

A condition resembling terminal ileitis in mature ewes

Terminal ileitis, or regional enteritis, has been described in lambs. It is characterized by poor weight gain or loss of bodily condition, diarrhea, and abdominal stretching, which may be due to abdominal pain (1–3). While a specific etiological agent has not been identified, some reports have suggested the involvement of a hypersensitivity reaction to some dietary or other antigen, or ongoing antigenic stimulation by some viral, bacterial, or parasitic agent, such as Border Disease virus, *Campylobacter* spp, or coccidia (1–4). Lesions in the ileum include ulceration of the mucosa, cryptitis, blunting of the villi and thickening of the mucosa due to hyperplasia of crypt epithelium, and infiltration of the lamina propria with predominately lymphocytes. The

hyperplasia may result in an adenomatous proliferation of the mucosa. Lesions may also occur in the jejunum, colon, and cecum. The current literature details the disease in lambs 2 to 32 wk of age. To our knowledge, there are no reports describing the condition in mature sheep.

At the Brighton Diagnostic Laboratory, between June 1, 1992 and June 1, 1994, a condition with strikingly similar gross and microscopic lesions to the above was seen in 3 mature ewes from 2 flocks. They were a 5-year-old and a 7-year-old Katahdin and a 4-year-old Leicester/Suffolk cross. In all 3 cases, the ewes had suffered from chronic weight loss and diarrhea and were thin or emaciated. Two of the 3 had a mild to